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*Ypsolopha* Latreille, 1796 (Lepidoptera: Ypsolophidae)

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# Contribution to the knowledge of Yponomeutoidea. VII. Two new species of the genus *Ypsoloph* Latreille, 1796 (Lepidoptera: Ypsolophidae)

E. Baraniak

## Abstract

*Ypsoloph buszkoi* Baraniak, sp. n. and *Y. desertella* Baraniak, sp. n. are described from United Arab Emirates. The adults and female genitalia are described. The range of the species and the characteristic features distinguishing them from similar species of the same genus are specified.

KEY WORDS: Lepidoptera, Ypsolophidae, *Ypsoloph buszkoi*, *Ypsoloph desertella*, taxonomy, morphology, United Arab Emirates.

## Contribución al conocimiento de Yponomeutoidea. VII. Dos nuevas especies del género *Ypsoloph* Latreille, 1796 (Lepidoptera: Ypsolophidae)

## Resumen

Se describen de los Emiratos Árabes Unidos *Ypsoloph buszkoi* Baraniak, sp. n. e *Y. desertella* Baraniak, sp. n. Se describen los adultos y la genitalia de las hembras. Se incluye la distribución geográfica de las especies y las especiales características que las distinguen de las especies similares del mismo género.

PALABRAS CLAVE: Lepidoptera, Ypsolophidae, *Ypsoloph buszkoi*, *Ypsoloph desertella*, taxonomía morfología, Emiratos Árabes Unidos.

## Introduction

The genus *Ypsoloph* Latreille, 1796 is the most abundantly represented in family Ypsolophidae (AGASSIZ & FRIESE, 1996). Up to now, more than 120 species, distributed mainly in the Holarctic region, have been described (DUGDALE *et al.*, 1999).

In the Palaearctic region, the genus *Ypsoloph* is represented by about 70 species (ZAGULAJEV, 1981, PARK, 1983). Nearly all of them are similar in general appearance, as well as in respect of the shape of male and female genitalia, which are very specific to this genus (MORIUTI, 1964, 1977, ZAGULAJEV, 1981).

The Ypsolophidae of Africa and Southeast Asia are poorly studied. Current knowledge about them is primarily based on historical works of Meyrick, summed up in his catalogue (MEYRICK, 1914) and a few later papers (MEYRICK, 1912-1937). In recent decades, only a few contemporary authors have been interested in this subject, and usually they concentrated on the fauna of selected systematic groups and countries in this region (KUROKO & MORIUTI, 1987, MORIUTI, 1989, BYUN & BAE, 2001).

The latest paper on the fauna of small moths from Southeast Asia was published in the mid-1990s (ROBINSON *et al.*, 1994).

## Systematic

### *Ypsolopha buszkoi* Baraniak, sp. n. (Fig. 1)

Holotype: 1 (&), UAE, 10 km NE of Huwaylat, 18-IV-2006, J. Buszko leg., female, prep. gen. no. 5 UAE/2010 (Holotype in National Museum of Natural History, Leiden).

Wingspan: 17-18 mm. Head covered with white scales. Scape and pedicel covered with white adhering scales, individual elements of flagellum bicoloured: white with well-defined, wide brown rings. Labial palpus (Fig. 2) long, curved, only its basal element covered with short, pure white scales, while remaining 2 white but with some short, white-and-brown scales. Tuft of scales on central segment long and narrow. Individual scales bicoloured: white basally and distally, while central part with conspicuous brown triangular spots. Scales distally with 4 apices (2 central ones higher than 2 marginal ones). Maxillary palpus poorly visible, short and thin.

Forewing lanceolate, with a falcate or slightly curved apex. In the forewing (Fig. 3a) radial veins  $R_{4+5}$  are on a common stem, which is 3 times longer than their free parts. In the hindwing (Fig. 3b), veins  $R_s$  and  $M_1$  are also on a common stem, but free only immediately before the apex. Vein  $R_s$  reaches the costal margin at a distance from the apex, while  $M_1$  reaches the termen margin directly below it.

Forewing (Fig. 1) light grey, with scattered black scales, white only in basal area. A narrow white spot, running along the wing, is clearly separated from the dorsal margin by black scales. The scales form a narrow band running from the basal area to the apex. Veins with scattered white scales. Cilia coloured like the wing, with poorly defined darker cilia lines. Hindwing light grey, with similarly coloured cilia.

Thorax and tegula white, with a high proportion of light brown scales. Abdomen coloured similarly.

Female genitalia (Fig. 4): Apophyses posteriores very long, apophyses anteriores slightly wider, branched and short. Antrum membranous, strengthened in the upper part. Ductus bursae broad and very short, partly membranous, widening anteriorly and denticulate except for a portion between antrum and inception of ductus bullae and inception of bursa copulatrix (Fig. 4b). Ductus bullae short, membranous, bullae seminalis (Fig. 4a) large, membranous, distinctly smaller than bursa copulatrix. Six cornuti in the bulla seminalis, long and thin, clearly pointed at the apex. Ductus seminalis on leaving bulla seminalis is very thin and membranous. Corpus bursae elongate (Fig. 4c) very large, signum with one ridge (Fig. 4d).

Male, biology and habitat unknown.

Remarks: The elongated shape and wing venation  $R_4$  and  $R_5$  stalked of the forewing make this species similar to the group of mucronella proposed by MORIUTI (1977). In the female genitalia: the structure of signum and bursa copulatrix is similar to that in *Y. strigosus* (Butler, 1878). Ductus bursae in *Y. buszkoi* is very different to that in *Y. strigosus*. The bulla seminalis and its cornuti distinguishes this species from the ones hitherto known in Europe and known species in Asia.

Etymology: The name of this species is dedicated to the famous Polish lepidopterologist Jarosław Buszko, in honour of his achievements in the taxonomy of microlepidoptera.

### *Ypsolopha desertella* Baraniak, sp. n. (Fig. 5)

Holotype: 1 (&), UAE, Wadi Madaq, 460 m, 1-IV-2006, 25° 20' N 56° 07' E, C. Gielis leg., sta. 50, prep. gen. no 6 UAE/2010, specimens with destroyed right fore and hind wings. (Holotype in National Museum of Natural History, Leiden)

Wingspan: 15-16 mm. Head covered with long, forked bicoloured scales: white with grey-brown

bands immediately before the forking. Scape and pedicel covered with pure white adhering scales on the inner side, while on the outer side with scattered white scales whose ends are brown-grey. Individual elements of flagellum bicoloured: white with well-defined, wide black rings. Labial palpus (Fig. 6) long, curved; only its basal element covered with pure white scales, while remaining 2 white but with some white-and-brown scales. Tuft of scales on central segment long and wide. Individual scales bicoloured: white basally and distally, in central part with conspicuous brown triangular spots. Scales with 4 apices each. Maxillary palpus poorly visible, short and thin.

Forewing lanceolate, with a rounded apex. In the forewing (Fig. 7a) radial veins  $R_{4+5}$  stalked only up to 1/3 of their length, while remaining parts free. In the hindwing (Fig. 7b), veins  $R_s$  and  $M_1$  stalked up to 3/4 of their length, with remaining parts free. Vein  $R_s$  reaches the costal margin at a distance from the wing apex, whereas vein  $m_1$  reaches the termen margin directly below the apex.

Forewing (Fig. 5) white, having at half of its length a wide band of black scales, which ends at 2/3 of wing width. Between the wing base and the band, 5 conspicuous thin dark lines run from costal margin to dorsal margin. The lines, composed of black scales, form a characteristic marbled pattern. Two narrow parallel bands, composed of black scales, run from the wide band towards the wing apex. A group of black scales below them forms an elongated black spot. At the wing apex, groups of black scales form 4 small wedge-shaped spots. A pure white elongated spot runs along the tornal area to the wing apex. Cilia coloured like the wing, with 3 darker cilia lines composed of black scales. Hindwing light grey, with similarly coloured cilia.

Thorax and tegula white, with a high proportion of black scales. Abdomen coloured similarly.

Female genitalia (Fig. 8): Apophyses posteriores long, apophyses anteriores slightly wider, branched and short. Antrum membranous. Ductus bursae thin, short, partly membranous, widening anteriorly and denticulate except for a portion between antrum. Bursa copulatrix rounded, membranous, signum small with one ridge.

Male, biology and habitat unknown.

Remarks: The elongated shape of the forewing make this species similar to the group of *mucronella* proposed by MORIUTI (1977). Wing venation indicates also that this species belong to the *mucronella* group. In the female genitalia: the structure of signum and bursa copulatrix is similar to that in *Y. yasudai* Moriuti, 1977. Ductus bursae very different to that in *Y. yasudai*. At the inception to the bursa copulatrix the ductus bursae is much voluted. In *Y. yasudai* at the inception to bursa copulatrix the ductus bursae is never voluted.

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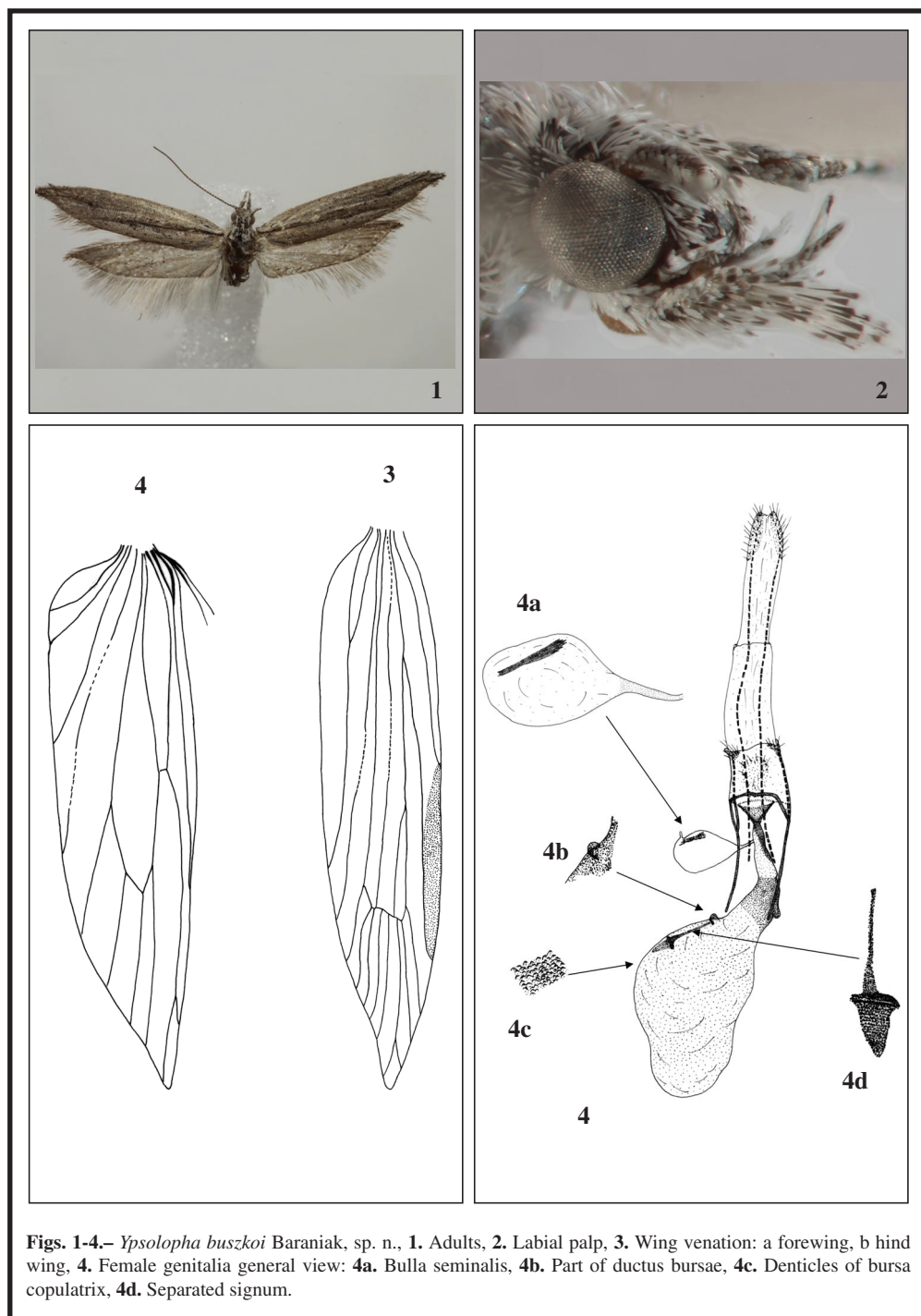
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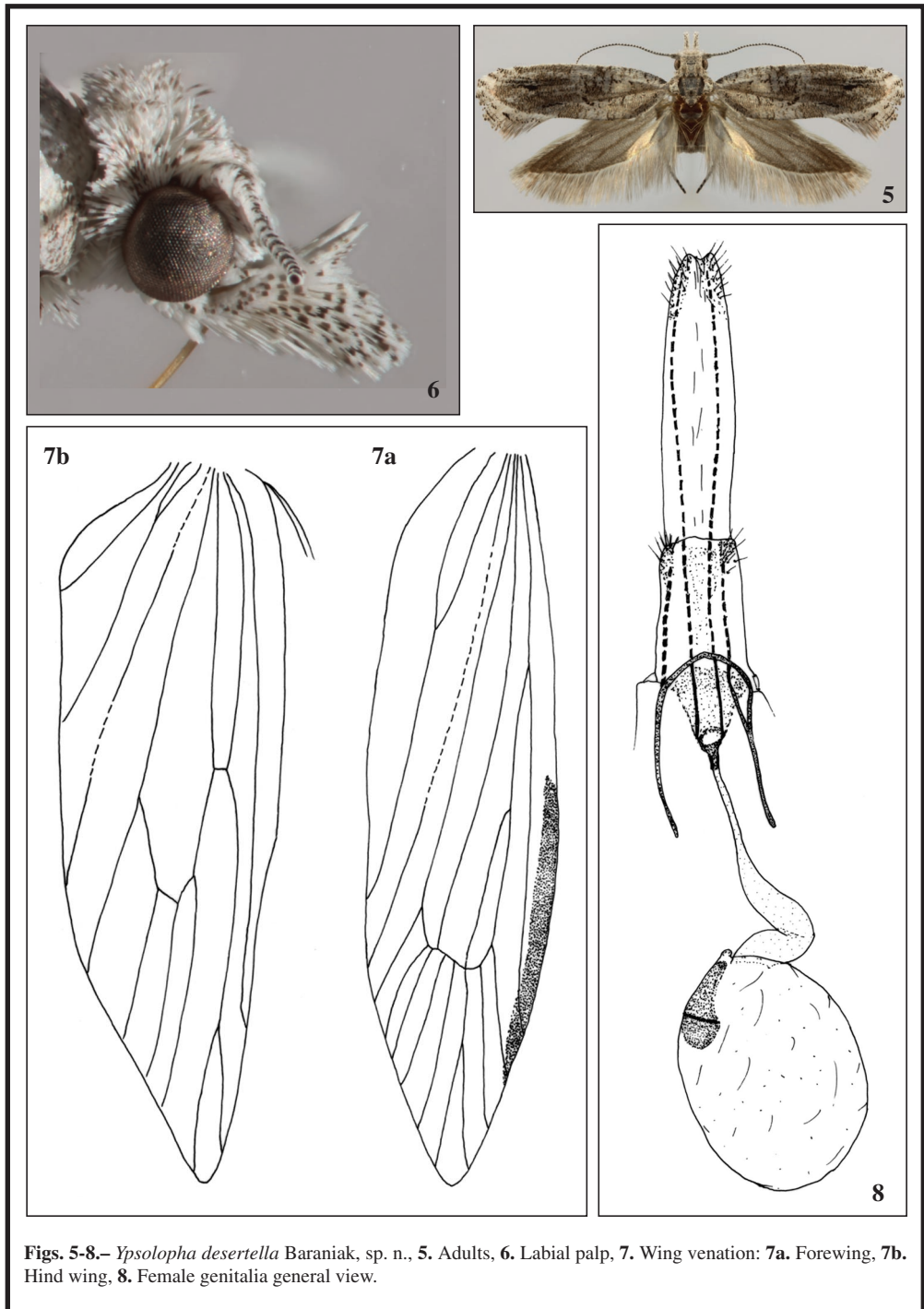
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**Figs. 1-4.**– *Ypsolopha buszkoii* Baraniak, sp. n., **1.** Adults, **2.** Labial palp, **3.** Wing venation: a forewing, b hind wing, **4.** Female genitalia general view: **4a.** Bulla seminalis, **4b.** Part of ductus bursae, **4c.** Denticles of bursa copulatrix, **4d.** Separated signum.



**Figs. 5-8.**— *Ypsolopha desertella* Baraniak, sp. n., **5.** Adults, **6.** Labial palp, **7.** Wing venation: **7a.** Forewing, **7b.** Hind wing, **8.** Female genitalia general view.